

AMENDMENTS TO THE CLAIMS

1-13. (Canceled)

14. (Currently amended) A particulate matter vibro-fluidizing apparatus ~~having~~
comprising vibrating means and means for treating the particulate matter,

said means for treating the particulate matter comprising a set of different types of vibrating bodies operating in cooperation with said vibrating means, said vibrating bodies comprising a container filled with the particulate matter defining a particulate matter layer and a vibrating medium installed within the container,

wherein vibro-fluidizational behavior of said particulate matter in said particulate matter layer is ~~fluidization-treated~~ controlled by a cooperative vibrating action occurring between said different types of vibrating bodies so as to generate circulation in said particulate matter layer by applying vibrations thereto where said particulate matter repeatedly appears at the surface of said particulate matter layer from the bottom of said container.

15. (Canceled)

16. (Currently amended) The particulate matter vibro-fluidizing apparatus of claim [[15]] 14, wherein the cooperation of the different vibrating bodies of the vibrating means comprises cooperation where the vibrating means is coupled with one of the vibrating bodies, and cooperation where the other vibrating body receives vibrations from the one vibrating body.

17. (Currently amended) The particulate matter vibro-fluidizing apparatus of claim [[15]] 14, wherein the cooperation of the different types of vibrating bodies of the vibrating means is cooperation coupling with the vibrating means in such a manner that each vibrating body is controlled by an individual vibration.

18. (Currently amended) The particulate matter vibro-fluidizing apparatus of claim [[15]] 14, wherein the vibrating medium is a porous plate.

19. (Currently amended) The particulate matter vibro-fluidizing apparatus of claim [[15]] 14, wherein the vibrating medium is an aggregate comprising a plurality of spherical bodies.

20. (Previously presented) The particulate matter vibro-fluidizing apparatus of claim 14, wherein the cooperation of the different vibrating bodies of the vibrating means comprises cooperation where the vibrating means is coupled with one of the vibrating bodies, and cooperation where the other vibrating body receives vibrations from the one vibrating body.

21. (Previously presented) The particulate matter vibro-fluidizing apparatus of claim 14, wherein the cooperation of the different types of vibrating bodies of the vibrating means is cooperation coupling with the vibrating means in such a manner that each vibrating body is controlled by an individual vibration.

22. (Currently amended) A particulate matter vibration treatment apparatus having vibrating means and means for treating the particulate matter, said means for treating the particulate matter comprising:

a container having a bottom and operating in cooperation with said vibrating means; and
amplifying means for amplifying vibrations of the container;

wherein said amplifying means comprises a plate being provided inside said container spaced away from the bottom of the container and floating bodies being provided between said plate and the container so as to collide with said plate, and wherein said particulate matter within the container placed on said plate is to be vibration-treated by a vibrating action caused by said amplifying means cooperative vibration action of vibration due to the amplifying means and vibration of the container.

23. (Previously presented) The particulate matter vibration treatment apparatus of claim 22, wherein the vibrating means cooperates in such a manner as to apply vertical vibrations to the bottom part of the container.

24-25. (Canceled)

26. (Currently amended) The particulate matter vibration treatment apparatus of claim [[25]] 22, wherein the vibrating means cooperates in such a manner as to apply vertical vibrations to the bottom part of the container.

27. (Currently amended) The particulate matter vibration treatment apparatus of claim [[25]] 22, wherein the vibration action comprises a cooperative vibration action of vibration due to the amplifying means and vibration of the container.

28. (Currently amended) The particulate matter vibration treatment apparatus of claim [[25]] 22, wherein the plate is comprised of a rubber sheet, a metal material or a resin material.

29. (Currently amended) The particulate matter vibration treatment apparatus of claim [[25]] 22, wherein the floating bodies are constituted by a plurality of spherical bodies made of metal, resin or rubber.

30. (Previously presented) The particulate matter vibration treatment apparatus of claim 22, wherein the particulate matter treatment means is used within a vacuum.